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Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

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01-ERD-065

Mr. Patrick Sobotta, Director
Environmental Restoration/
Waste Management Program
Nez Perce Tribe
P.O. Box 365
Lapwai, Idaho 83540

RECEIVED
AUG 01 2001

EDMC

Dear Mr. Sobotta:

TRANSMITTAL OF RESPONSE TO ECOLOGY COMMENTS ON "200-PW-2 URANIUM-RICH PROCESS WASTE GROUP OPERABLE UNIT RI/FS WORK PLAN AND RCRA TSD UNIT SAMPLING PLAN," DOE/RL-2000-60, DRAFT A

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Please find attached the U.S. Department of Energy, Richland Operations Office's responses to Stan Sobczyk's comments on the subject document. Thank you for taking the time to review the draft work plan.

If you should have any questions, or if you feel we need to have further discussion regarding these comment responses, please contact me or Bryan L. Foley on (509) 376-6332 and (509) 376-7087, respectively.

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin V. Clarke".

Kevin V. Clarke, Manager
Indian Nations Program

ERD:BLF

Attachment

cc w/attach:
J. Price, Ecology
L. C. Treichel, EM-43

cc w/o attach:
B. H. Ford, BHI
M. J. Graham, BHI
C. D. Wittreich, BHI

**Responses to Comments Received from the Nez Perce Tribe's Environmental Restoration and Waste Management Program (ERWM) on
200-PW-2 Uranium-Rich Process Waste Group Operable Unit RI/FS Work Plan
and RCRA TSD Unit Sampling Plan, DOE/RL-2000-60, Draft A**

General Comments

1. Prior to any ground disturbing activities, Tribal personnel would like to be notified and offered the option of being present during any ground disturbance to protect cultural resources.

Response: Accepted. This is part of routine operating procedures and it is required that this process be followed.

2. There should be plans to do some minimal level of sampling of biota to look at potential impacts before and after cleanup to determine if contamination could still pose a problem to ecological resources.

We recommend that as waste sites are being targeted for characterization and cleanup actions that biological sampling and monitoring be instituted to determine if flora and fauna are at risk. Characterization studies and conceptual models should not be based solely on human health risk scenarios but should also include plants and animals. Documenting and verifying contaminant levels in biota would go a long ways in determining if a site is really "cleaned up."

ERWM recommend that in the future at Hanford waste sites, including those contained in the 200-PW-2 operable unit, biological sampling be included as part of the clean up process even though this may not be specifically required by CERCLA and RCRA. Depending on the characteristics of a waste site, biological media such as insects, deep-rooted vegetation, small mammals, and pocket mouse mounds should be considered in the sampling program. ERWM contends that taking a few biological samples before and after cleanup does not significantly alter the overall cost and provides data that is representative of the whole system.

Response: Acknowledged. As indicated in a comment from Mr. J. Price, Ecology manager for this work plan on the review of Draft A, "The Department of Ecology has previously discussed with DOE that a comprehensive approach to ecological assessment is required for the 200 Area. Discussions are currently underway to define that approach. Accordingly, the Department of Ecology will not ask for ecological assessment to be addressed for 200-PW-2 at this time. We reserve the right to ask for Operable Unit-specific information at a later date." The Tri-Parties have recognized the need to obtain more ecological samples and are in a process of determining the best approach to optimizing this effort for the entire 200 Area.

3. It appears that insufficient sampling is being proposed to characterize the 200-PW-2 waste sites. At least one waste site should be fully characterized. Further study to define the waste sites would aid the remediation workers in anticipating potential hazards, estimating remediation costs, and performing risk assessments. While drilling well 299-W15-762 in November 2000, unanticipated contamination was encountered jeopardizing the health of the workers and eventually this borehole was abandoned.

Response: The level of characterization planned at each of the representative and TSD unit waste sites is considered adequate for the main purpose of this effort, which is to support a remedial action decision. Information from the borehole to be placed at each site is considered sufficient to address the concerns noted in the comment.

Specific Comments

1. Page 1-4, Figure 1-1

The process described by this figure does not include a procedure for conducting additional characterization should it be deemed necessary in the 200-PW-2 RI Report.

Response: This figure represents the typical process flow as outlined in the 200 Area Implementation Plan. Should additional characterization needs be defined as a result of the RI activities means for obtaining this information can be factored in as part of the confirmation or verification sampling that is defined as part of the process (as described in Sections 2.4.4 and 2.5 of the Implementation Plan) and in Section 5.5 of the work plan.

2. Page 2-6, Section 2.1.5.2, Second Paragraph

The wording in this paragraph is confusing and contradicts Figure 2-4 of this report. Plate 9 of Williams et al (2000) shows that the Ringold Gravel Unit E and the Ringold Lower Mud Unit are not present at this location.

Response: Accepted. The text of this paragraph will be revised. In addition, the contact between the Hanford formation and the Ringold Formation in Figure 2-4 has been revised.

3. Page 2-44, Figure 2-6

The Upper Ringold is shown as being a member of the Plio-Pleistocene Unit A as result of a drafting error.

Response: Accepted. The figure will be revised.

4. Page 3-7, Section 3.3.1.4, Fifth Paragraph

The conclusion that "...the lateral spread of contaminants at the crib is limited to the immediate area of the crib." based on data from one borehole (299-W22-78) may be premature.

Response: Accepted. The wording "is limited" will be changed to "may be limited".

5. Pages 3-9 & 3-10, Section 3.3.1.6

The distribution of Strontium-90 in the vicinity of this crib should be discussed as in pages 5-31 and 5-116 of Appendix G, *Groundwater/Vadose Zone Integration Project Specification*, DOE/RL-98-48, Draft September 29, 1998.

Response: Accepted. The referenced draft was superseded by issuance of Rev. 0 of DOE/RL-98-48, which no longer contains an Appendix G. The text and figure referenced were found in Section 4 of Rev. 0, which led to the source reference for the discussion. Additional discussion regarding Strontium-90 will be added to Section 3.3.1.6 and will be reflected in the conceptual model in Figure 3-15.

6. Page 3-11, Section 3.3.2, Third Bullet

Characterization efforts are needed to determine the lateral distribution as well as the vertical distribution of the contaminants. The statement that "Lateral spreading of liquids and contaminants was limited..." is not supported by references and may not be the case in some areas. No subsurface maps are shown within the document that supports this statement.

Response: Acknowledged. Further characterization to determine lateral distribution is defined in the Implementation Plan as a task that can be accomplished as part of the confirmation sampling that takes place later in the RI/FS process after a record of decision. The characterization approach in the work plan is sufficient to be utilized in the decision making process leading up to the ROD.

The bullet will be revised to read: "Effluent and mobile contaminant migration is predominantly vertical beneath the waste site after release. Lateral spreading of effluents and contaminants may have occurred in association with fine-grained lithofacies such as the sandy sequence of the Hanford formation and the Plio-Pleistocene unit/early Palouse soil."

7. Page 3-24, Section 3.5.3.3

There should be plans to do some minimal level of sampling of biota to look at potential impacts before and after cleanup to determine if contamination could still pose a problem to ecological resources.

Response: See the response to General Comment #2.

8. Page 4-1, Section 4.1

If the 216-U-8 Crib and the 216-U-12 Crib are truly analogous, then their contaminant distribution models (Figures 3-12 and 3-13) should be similar. However, Figures 3-12 and 3-13 of this document indicate different distributions contaminants in the subsurface. Subsurface mapping should be included in this document which supports the assertion that these two cribs have been fully characterized.

Response: The models for these two sites are in fact similar. The highest concentrations exist immediately underneath each of the waste sites, with concentrations decreasing with depth. At the U-8 crib there is direct evidence of uranium existing at the caliche layer. At the U-12 crib there is no direct evidence as stated in Footnote 3 on Figure 3-13. Based on process history, previous characterization data, and the geology of the surrounding area there is sufficient information available to support the assertion that uranium will likely be found at the caliche layer beneath the U-12 crib as well. This information is sufficient for remedial action planning and decision making at these locations.

9. Page 5-7, Section 5.2.5.3

In addition to a human health risk assessment, an ecological risk assessment should be performed as well.

Response: See the response to General Comment #2.